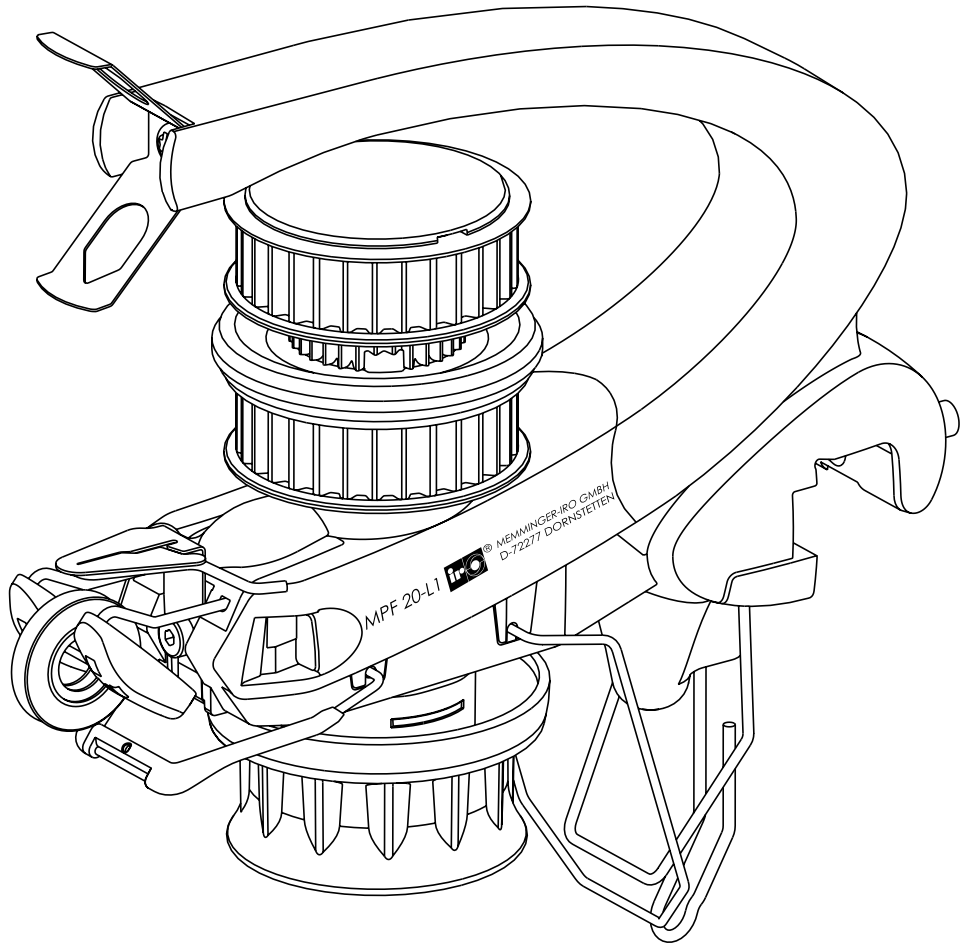
Betriebsanleitung
Operating Instructions
Instructions de service
Instrucciones de uso
Istruzioni per l'uso
Kullanma Kılavuzu
Instruções de utilização
操 作 手 册

MPF L



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portugues
中文

MEMMINGER-IRO GMBH
D-72277 DORNSTETTEN

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10.05.10

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We are pleased that you selected a MEMMINGER-IRO product.
The more familiar you are with this product, the better are the results you will achieve.

Important notes!

Please read through these operating instructions before you start to operate the device. They include important information and notes which must be observed when using this device.

The MPF-L is exclusively intended for feeding staple and filament yarns into circular knitting machines.

We would like to emphasise that we do not take any liability for damages and operating faults which result from incorrect use or improper handling of this device.

Please ensure that the operating voltage is within the permissible range of this device.

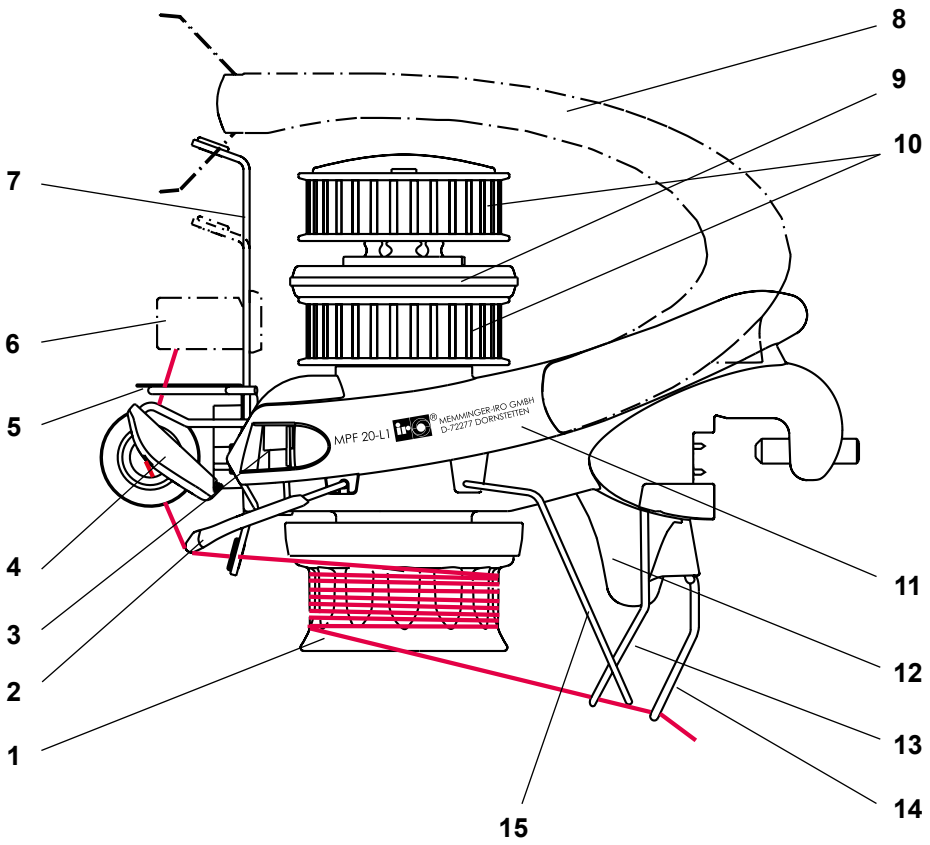
All electrical connections must be made by authorised personnel.

The adjustment pulley and the tensioner may only be adjusted when the circular knitting machine is switched off.

When the circular knitting machine is in operation, the traditional precautionary measures must be taken at the adjustment pulley and the guide pulleys.

In order to prevent hazards, the drives must be completely closed with suitable covers when adjustment pulleys are retrofitted.

Parts description



1	-	Feed wheel
2	-	Inlet stop motion
3	-	Stop motion lockout
4	-	Tension ring holder with tension rings
5	-	Knot catcher
6	-	Tube holder
7	-	Inlet bracket
8	-	Inlet arm (optional)
9	-	Clutch
10	-	Toothed belt pulleys
11	-	Chassis
12	-	STOP pilot lamp
13	-	U bracket
14	-	Outlet hook
15	-	Outlet stop motion

Function

The MPF-L is a new generation of the internationally well-known Memminger Positive Feeder MPF. Based on productive dynamism, we designed the MPF-L to meet the high requirements of our extremely demanding customers. the MPF-L strengthens the tradition of our devices standing for a positive and uninterrupted yarn feeding and thus for a constant and fault-free production.

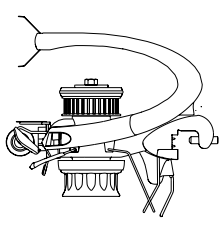
The design is a completely new development and is characterised by functionality and ergonomics. We put special focus on simple operation and maintenance, wear resistance and a long service life.

The following MPF-L versions are available:

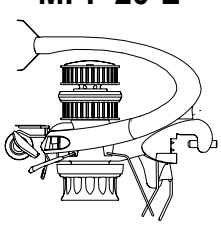
MPF10-L with one, MPF 20-L with two and MPF 30-L with three belt pulleys depending on the knitting machine and the stitch construction.

12 volt and 24 volt, depending on the power supply of the circular knitting machine.

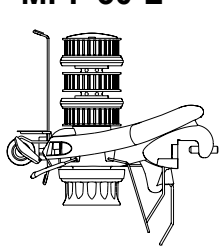
MPF 10-L

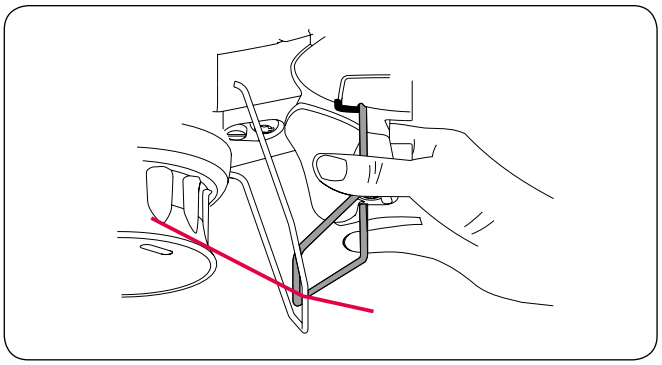


MPF 20-L



MPF 30-L





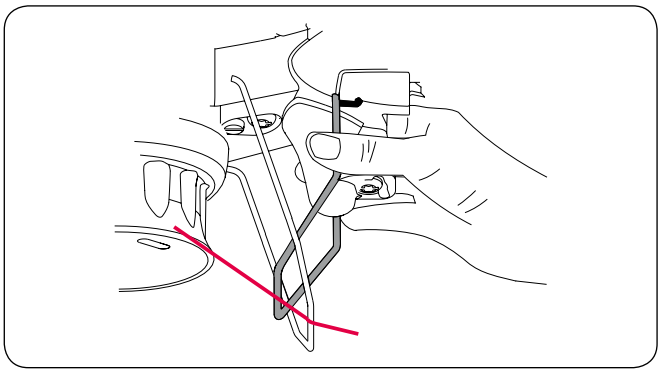
Anti-filamentation

The U-bracket can be adjusted into 2 positions by pressing it together and then sliding it:

Back position

When moving the U-bracket into the back position, it must be pressed together and pushed upward slightly.

- Flat yarn reel-off from the feed wheel for staple fibre yarns.

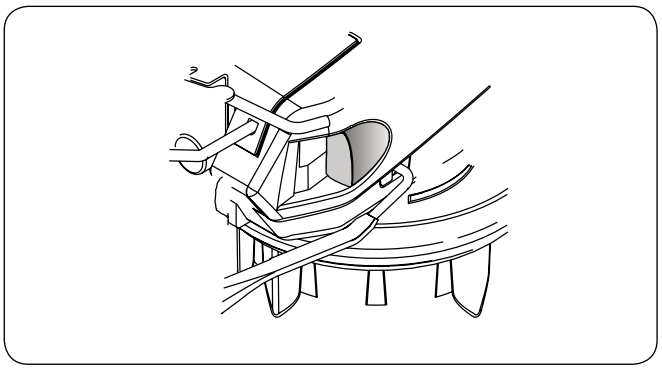


Front position

When moving the U-bracket into the front position, it must be pressed together and pushed downwards slightly.

- Steep yarn reel-off from the feed wheel for filament yarns (**anti-filamentation!**).

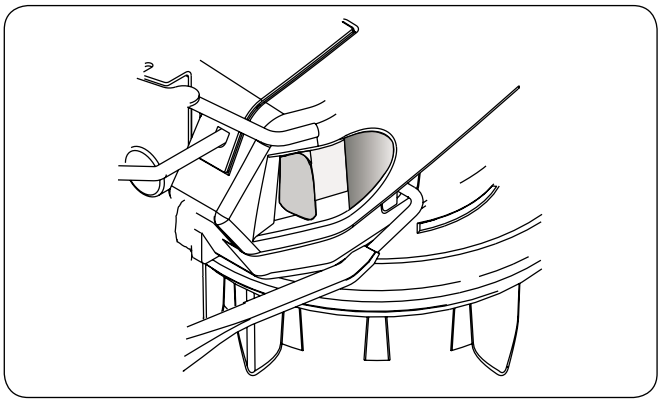
When processing filament yarns, broken filaments may build up and disrupt a smooth yarn movement. The front position of the U-bracket prevents filamentation. The back position, on the contrary, is suitable for staple fibre yarns.



Integrated stop motion lockout

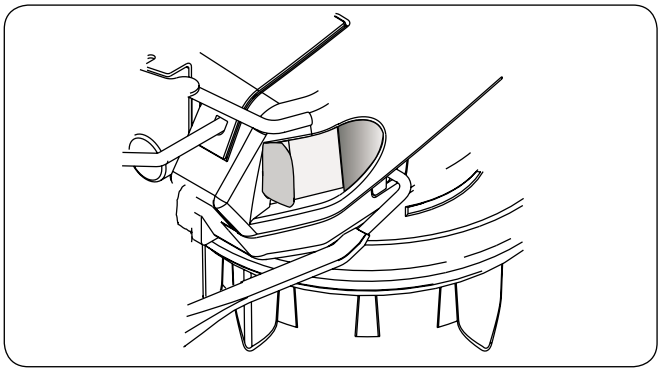
Back position

- Inlet and outlet stop motions in operating position, freely movable.



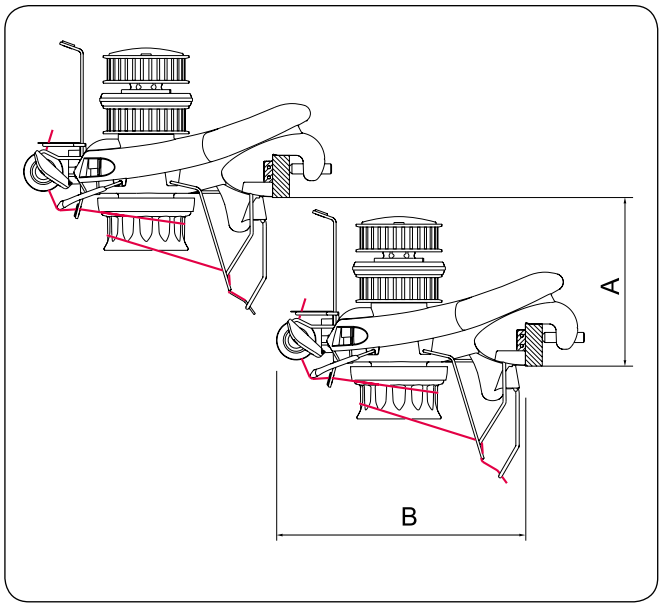
Centre position

- Inlet stop motion in operating condition, freely movable. Outlet stop motion locked.



Front position

- Inlet and outlet stop motions locked.



Space requirements for the installation of MPF-L

When mounting the MPF-L on one or more rings, the following clearances ensure optimum yarn reel-off:

MPF L-10:

A	=	70 mm
B	=	150 mm

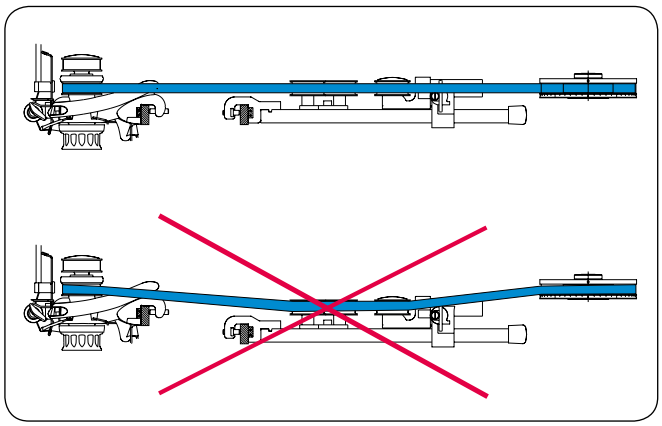
MPF L-20:

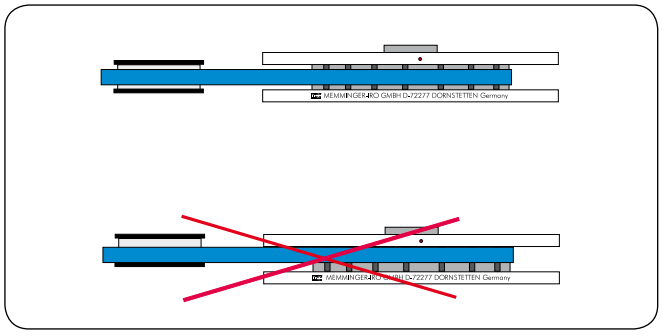
A	=	100 mm
B	=	150 mm

MPF L-30:

A	=	130 mm
B	=	150 mm

Minimum clearance between two MPF-L on the ring circumference: = 75 mm





Installation of tensioners

ATTENTION!
In order to prevent damages to the toothed belts, the following points must be observed:

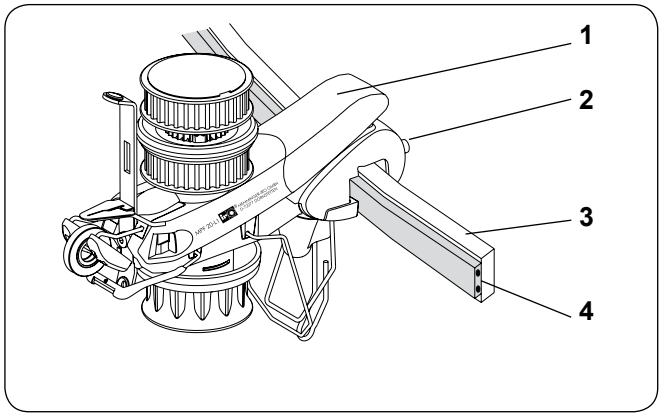
Quality adjustment pulley, tension pulleys and belt pulleys must be adjusted horizontally to the same height. The toothed belt must not rub on the edges of the adjustment pulley or the belt bulleys.

Please ensure correct tensioning of the toothed belts. We recommend our spring-loaded tensioner.

Always release the tensioner prior to adjusting the adjustment pulleys.

Avoid contaminated adjustment pulleys or a sluggishly running MPF-L.

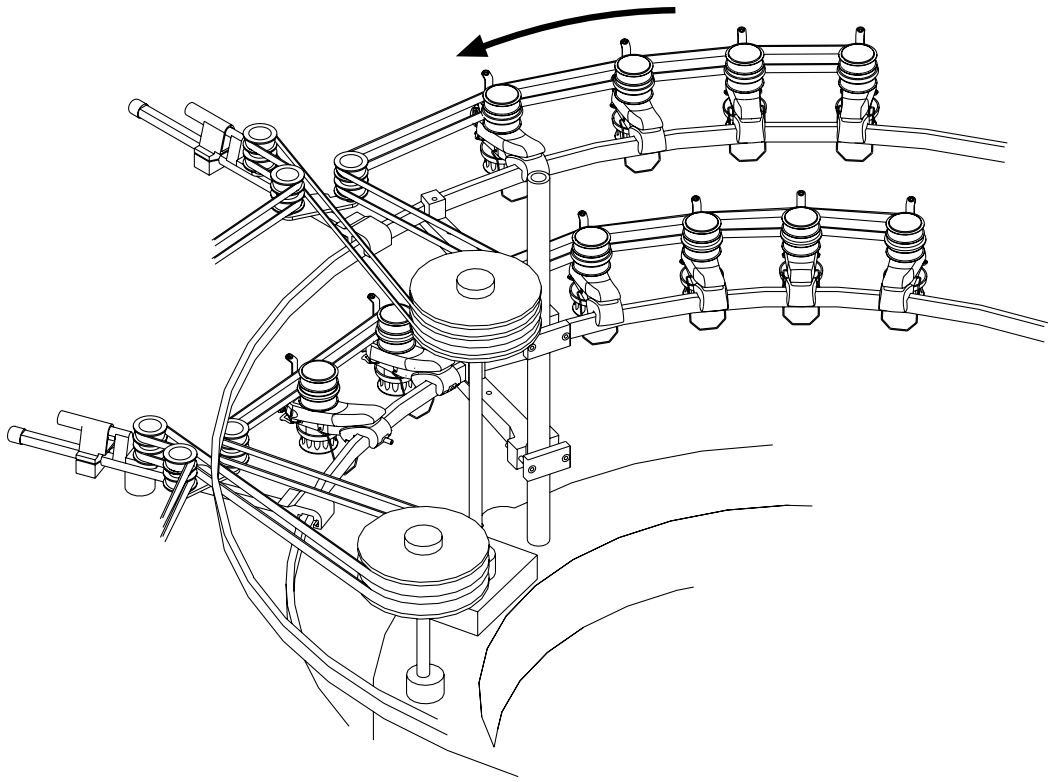
Always make sure that the toothed belt is neither buckled nor twisted.



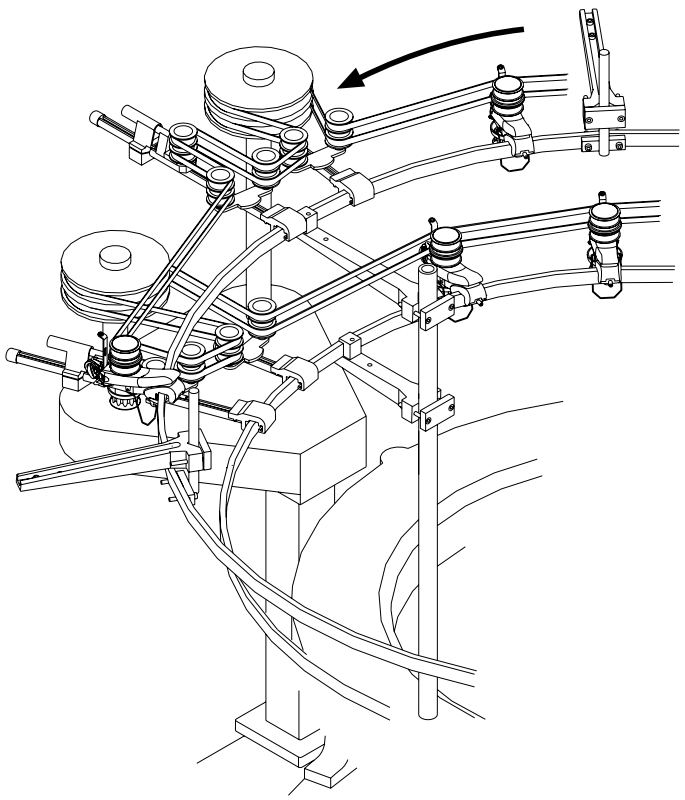
MPF-L installation

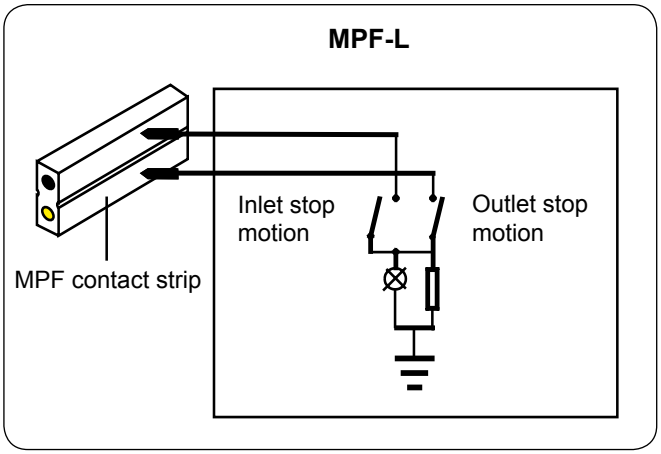
- Fit and connect the MPF contact strip (**4**) to the yarn feeder ring (**3**).
- Mount the MPF-L (**1**) onto the yarn feeder ring (**3**).
- Make sure that the MPF-L rests on the upper edge of the ring and is mounted horizontally.
- Tighten the threaded screw (**2**). Max. tightening torque 5 Nm.

Fitting of internal adjustment pulleys

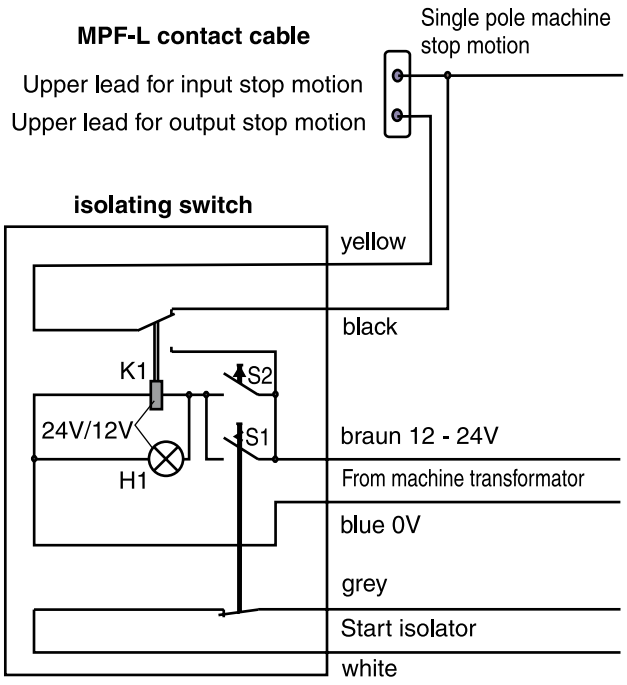


Fitting of external adjustment pulleys

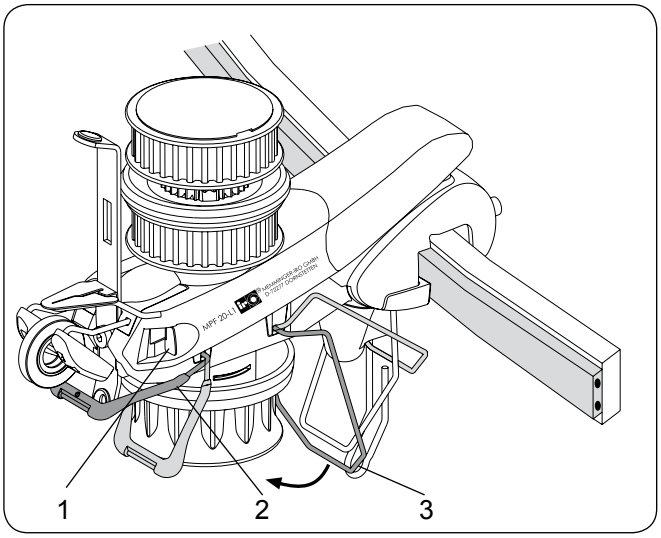




Connection diagram VSG



Terminal connection diagram 021-970-004, subject to changes.



Electrical connection

Characteristics of the MPF-L switch-OFF functions:

In case of a yarn break, one or both current circuits close the contact to earth via an incandescent lamp.

For the inlet and oulet stop motion, an incandescent light with 12 V 50 mA or 24 V 30 mA, depending on the control voltage of the circular knitting machine.

To guarantee a safe machine switch-off when the incandescent lamp is faulty, a resistance is integrated parallel to the lamp.

Attention!
Maximum contact load 10A!

Switch-OFF functions of the circular knitting machines:

To facilitate on-knitting, the outlet stop motion switch-off can be separated from the machine switch-off with the **"isolating switch for the outlet stop motion"**. With an activated isolating switch, the circular knitting machine can be run in the slow operating mode, even if the incandescent lamp lights.
Isolating switch for outlet stop motion

Switch function:

Switch S1 ON:

- Outlet stop motion is activated,
- Lamp H1 out,
- Motor relay is not interrupted.

Switch S1 OFF:

- Outlet stop motion is deactivated,
- Lamp H1 lit,
- Motor relay is interrupted.

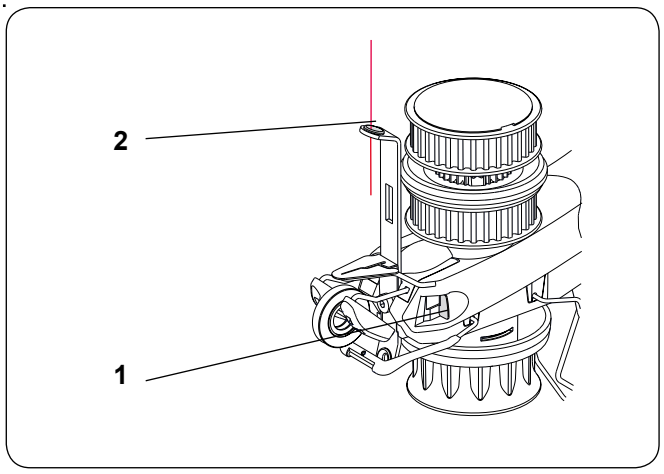
TIP switch S2 pressed:

- Outlet stop motion is deactivated,
- Lamp H1 lit,
- Motor relay not interrupted, machine can be started.

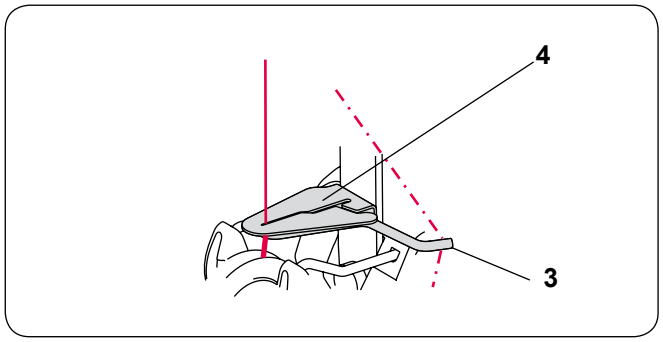
MPF-L functional test

- Set the stop motion lockout (**1**) to the back position.
- Press the inlet stop motion (**2**) upwards, put the outlet sensor (**3**) to the switch-OFF position, the lamp must light.
- Set the stop motion lockout (**1**) to the centre position.
- Put the inlet stop motion (**2**) to the switch-OFF position, the lamp must light up.

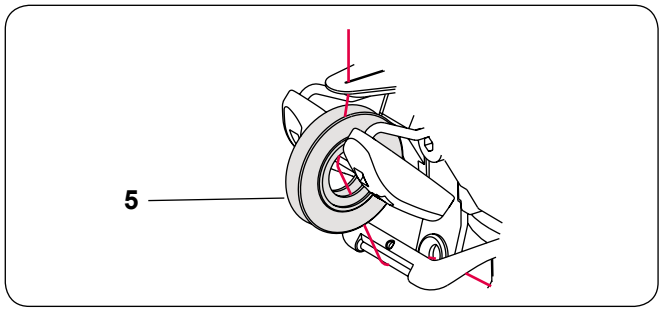
MPF-L threading



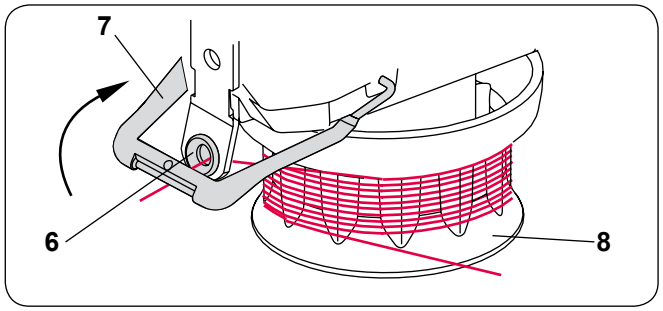
- Push the stop motion lockout (**1**) to the back end. The inlet and outlet stop motion must be freely movable.
- Thread the yarn through the eyelet of the inlet bracket (**2**).



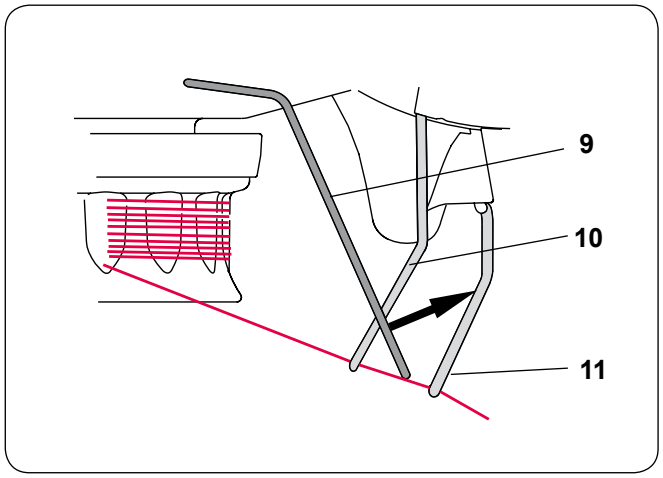
- Draw the yarn from the back through the yarn limiting hook (**3**) and the knot catcher (**4**).



- Put the yarn from the front between the tension discs (**5**).

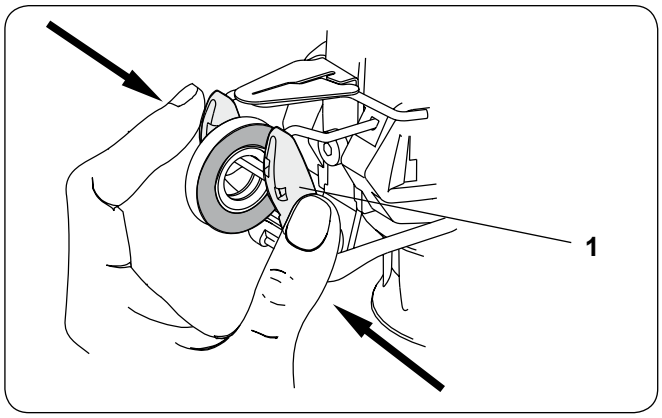


- Hold up the inlet stop motion (**7**) and thread the yarn through the eyelet (**6**).
- Release the clutch.
  Wind approx. 20 yarn windings onto the feed wheel (**8**) in accordance with the direction of travel of the drive belt.

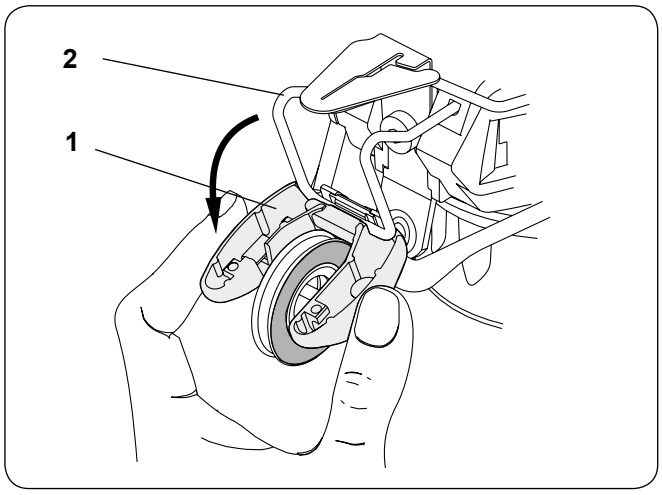


- Push the outlet stop motion (**9**) slightly to the back, thread the yarn through the U bracket (**10**) and hook it into the outlet hook (**11**).
- Engage the clutch.

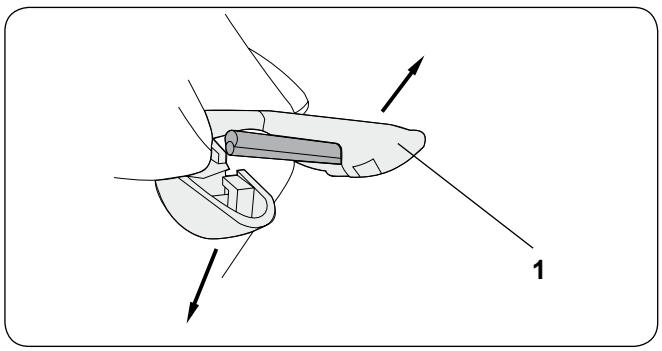
Replacement and cleaning of tension rings



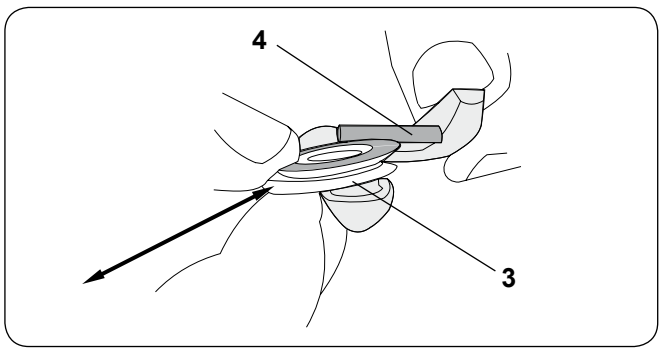
▶ Compress the tension ring holder (**1**) on both sides.



▶ Fold down the tension ring holder (**1**) and completely remove it from the tension arm (**2**) .

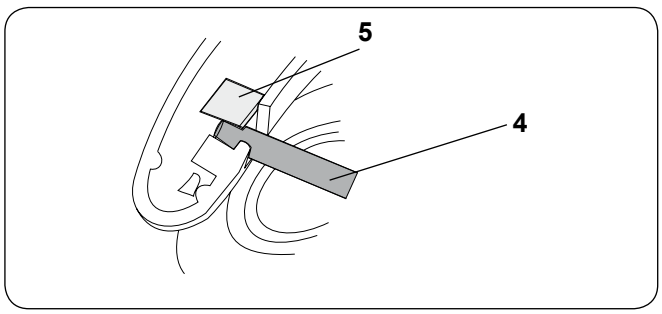


▶ Bend the tension ring holder (**1**) open.

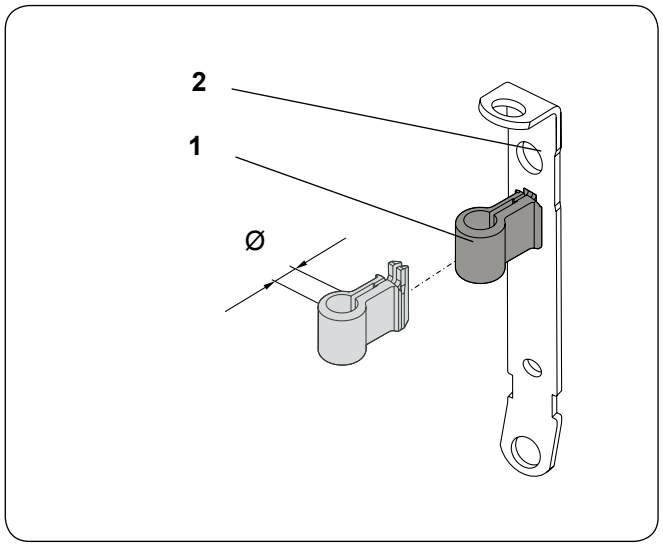


▶ Replace or clean the tension rings (**3**) by sliding them out to the ends.

NOTE!
Make sure that the tension rings (3) are not scratched by the tension pin (4).



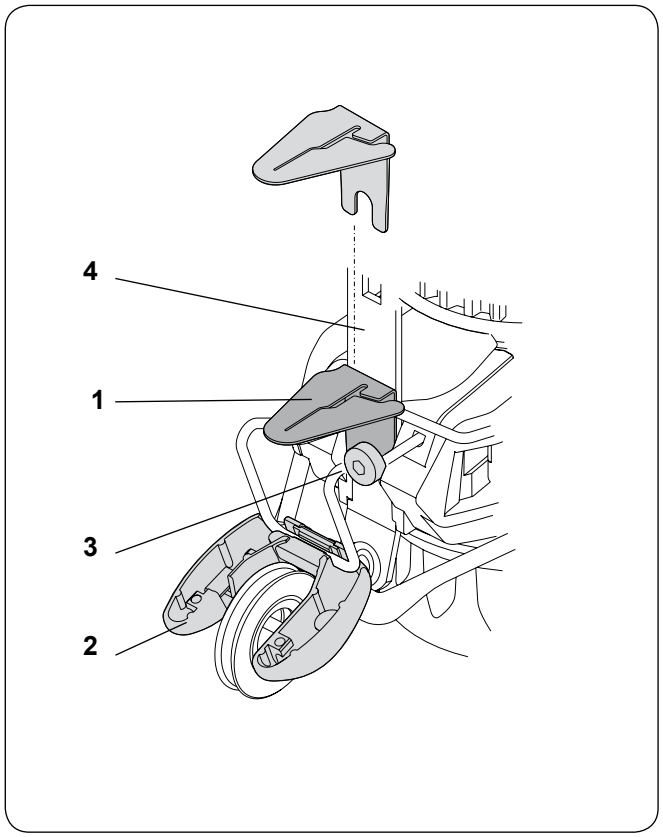
ATTENTION!
It is imperative that the tension pin (4) is underneath the lug (5) during compression. If this is not the case, the tensioner cannot be clipped back into the tensioner guide (2).



Tube holder

For closed yarn guiding, tube holders (**1**), depending on the tube diameter, are clipped into the inlet bracket (**2**) as illustrated in the drawing.

Tube holder Ø	Item no.
8.0 mm	001-260-046
9.5 mm	001-260-049
10.0 mm	001-260-050



Knot catcher

NOTE!
The knot catcher (1) prevents slubs in the yarn, multiple yarn windings from the package, knots which are too thick and contamination.

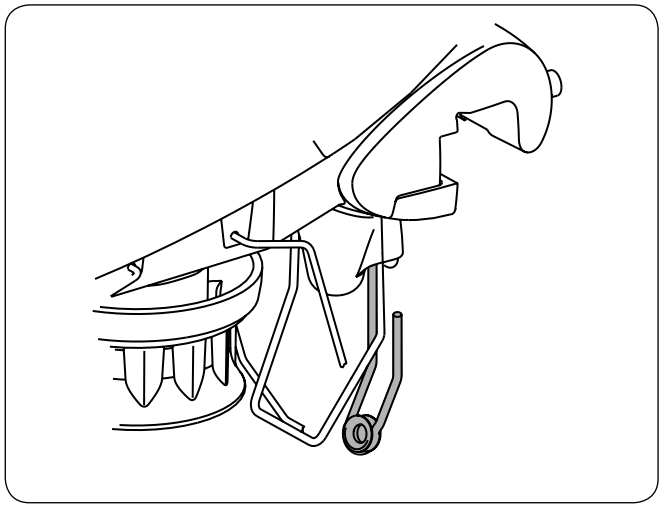
- Compress the tension ring holder (**2**) on both sides and fold it down.
- Release the screw (**3**), insert the knot catcher between the inlet bracket (**4**) and the screw (**3**) to the end stop and re-tighten the screw.

The following knot catchers are available depending on the yarn gauge:

Yarn count (dtex):	< 80	< 100	100 - 200	150 - 250	200 - 400	300 - 500	> 500
Slot width d (mm):	0,2	0,4	0,5	0,6	0,8	1,0	1,2
Item No.: 001-270-051	-02	-04	-05	-06	-08	-10	-12

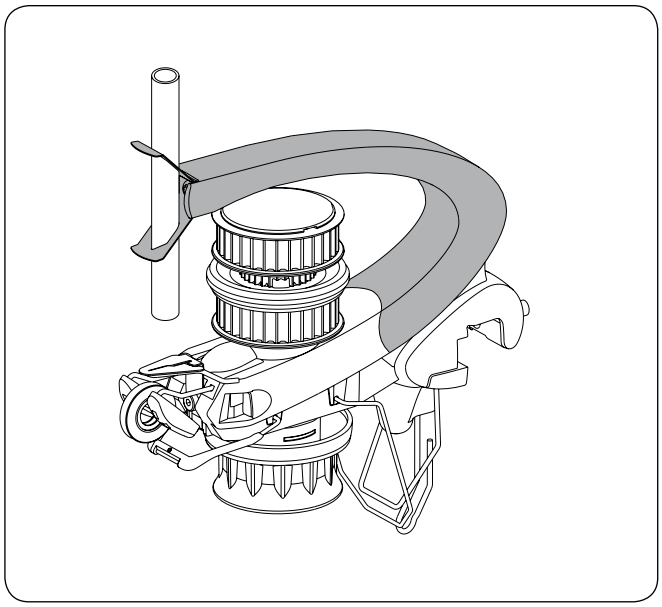
Example: Slot width d = 0.6 mm = Item no. of the knot catcher: 001-270-051-06

The values listed in the table serve only as guidelines.



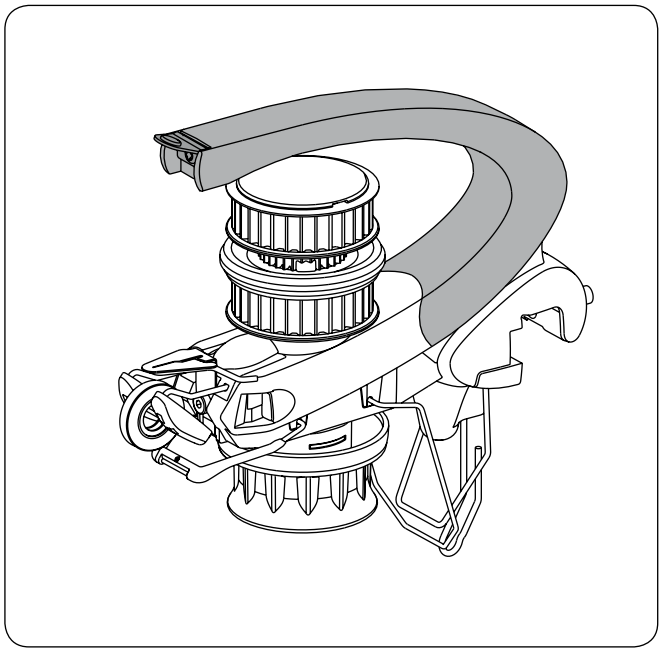
Outlet hook with grooved eyelet

For circular knitting machines with a higher positioned yarn reel-off, the outlet hook with grooved eyelet is available as an option (Item 001-200-102). This ensures an exact yarn guide.



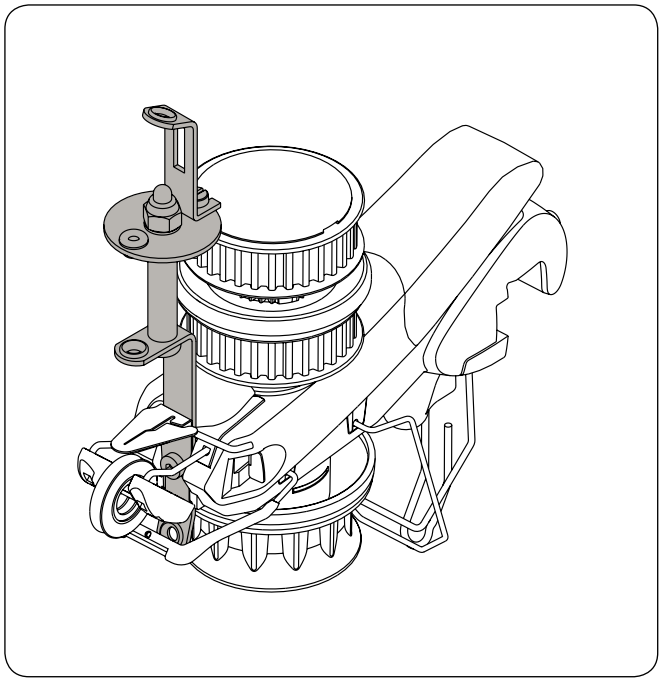
Inlet arm with tube clip

(Item 001-100-163)



Inlet arm with eyelet holder

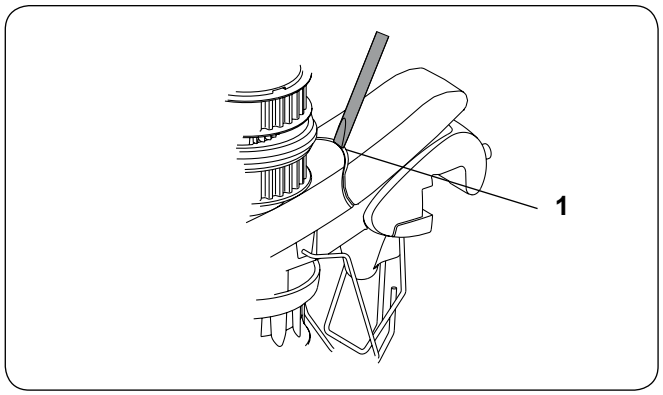
(Item 001-100-167)



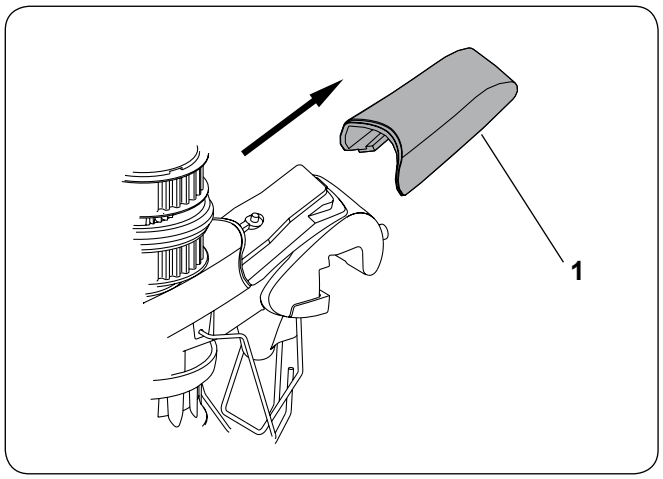
Barrel tensioner

(Item 001-100-147-10)

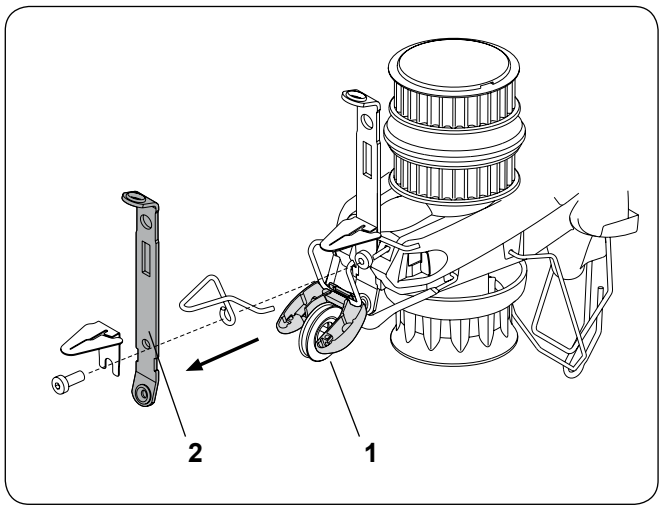
Installing inlet arm (conversion set)



▶ Press the screw driver in the middle between the MPF-L enclosure and the cover (**1**).

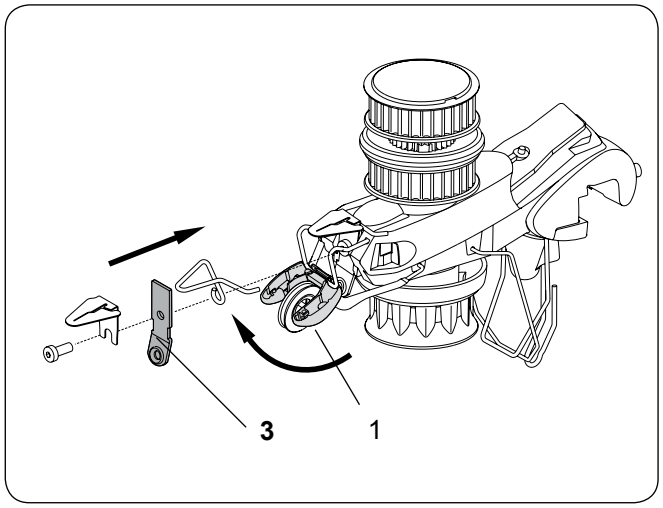


▶ Slide the cover to the (**1**) back.



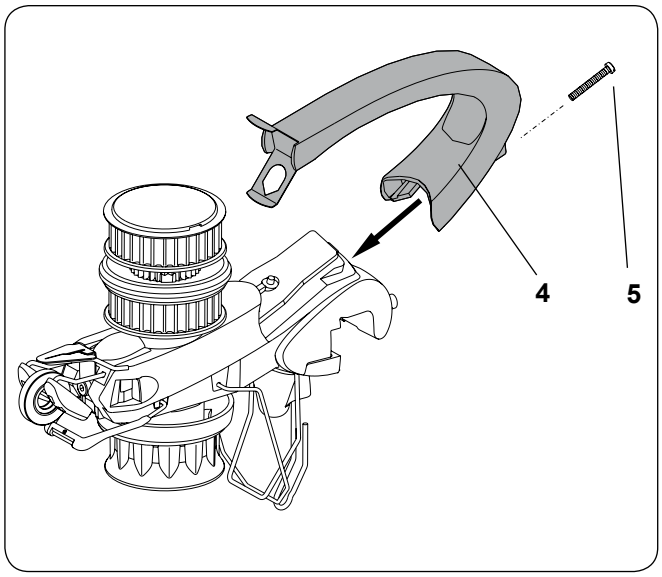
▶ Fold down the magnetic tensioner (**1**).

▶ Remove the inlet bracket (**2**).



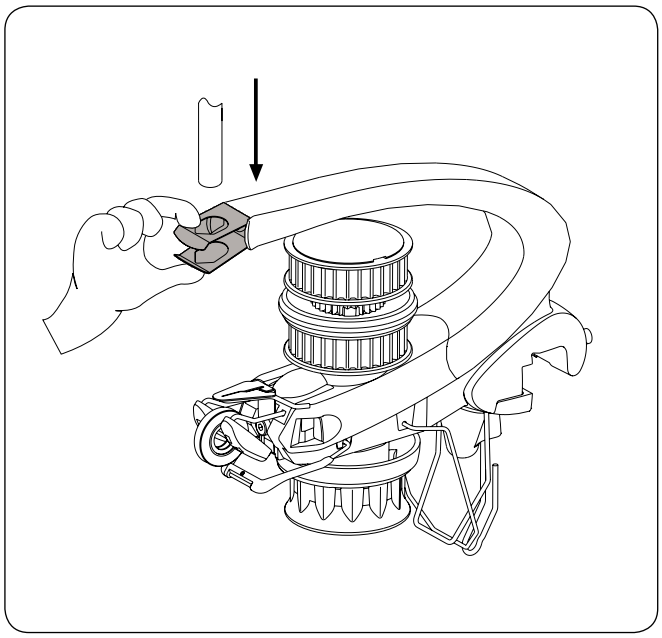
▶ Screw on the eyelet holder (**3**).

▶ Fold up the magnetic tensioner (**1**).



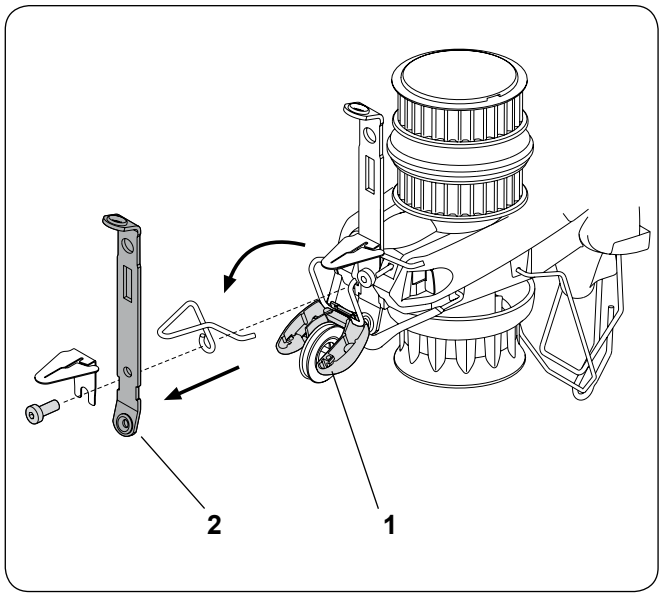
Installing inlet arm

▶ Slide the inlet arm (**4**) to its intended position and fix it with a PT screw (**5**).



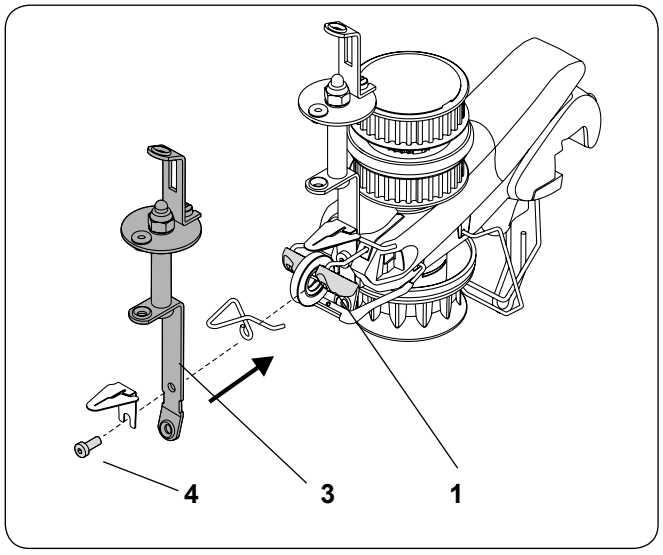
Fitting the yarn tube to the tube clip

▶ Compress the tube clip (Item 001-270-055) and push the tube through the tube clip.

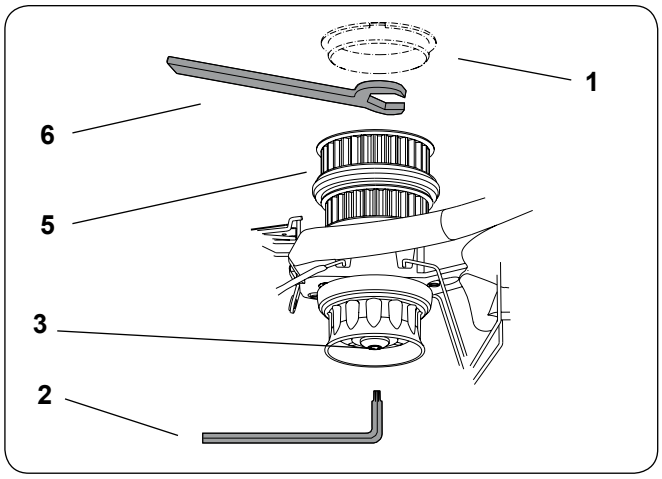


Installing barrel tensioner

- Fold down the magnetic tensioner (**1**).
- Remove the inlet bracket L (**2**).

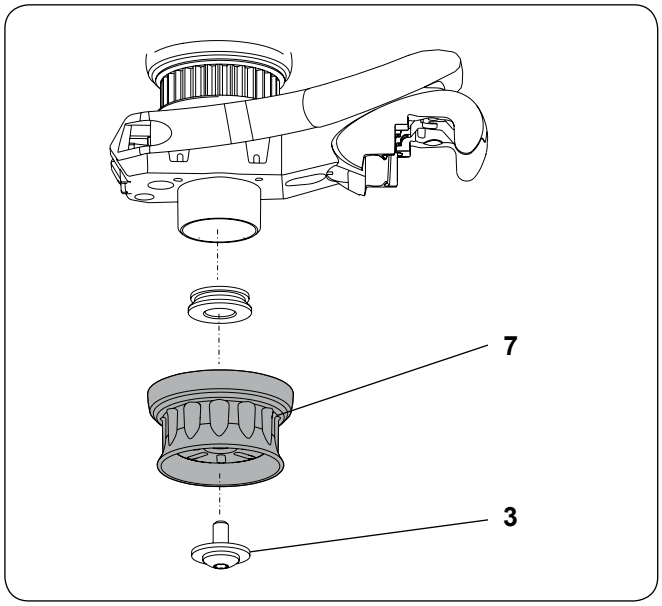


- Fix the barrel tensioner (**3**) using a cylinder screw (**4**).
- Fold up the magnetic tensioner (**1**).

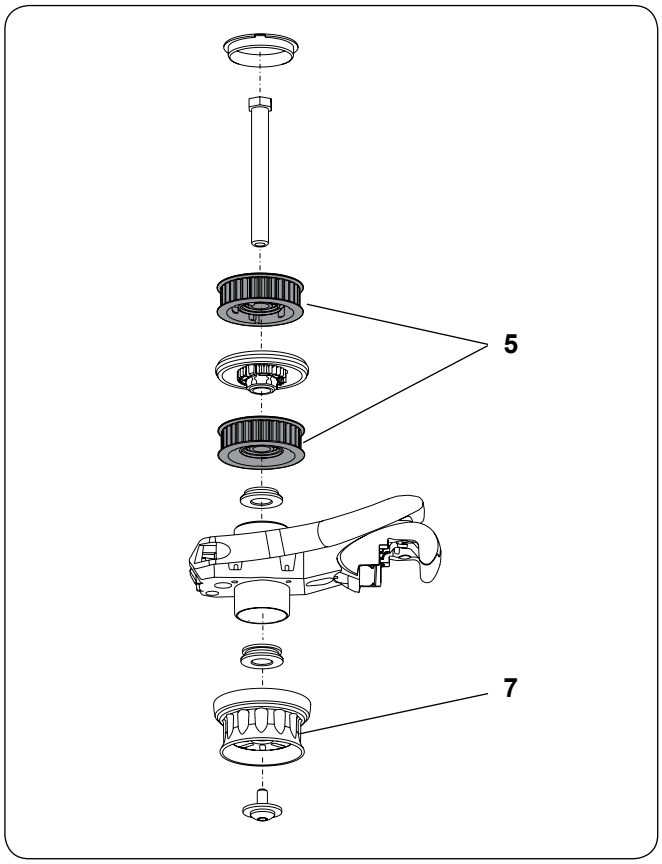


Removing the feed wheel

- Remove the dust cap (**1**).
- Use the key (**6**) to secure the nut against the shaft.
- Unscrew the combined pan head screw (**3**) using a Torx T30 driver (**2**) (Item 000-690-029).



- Remove the feed wheel (**7**).



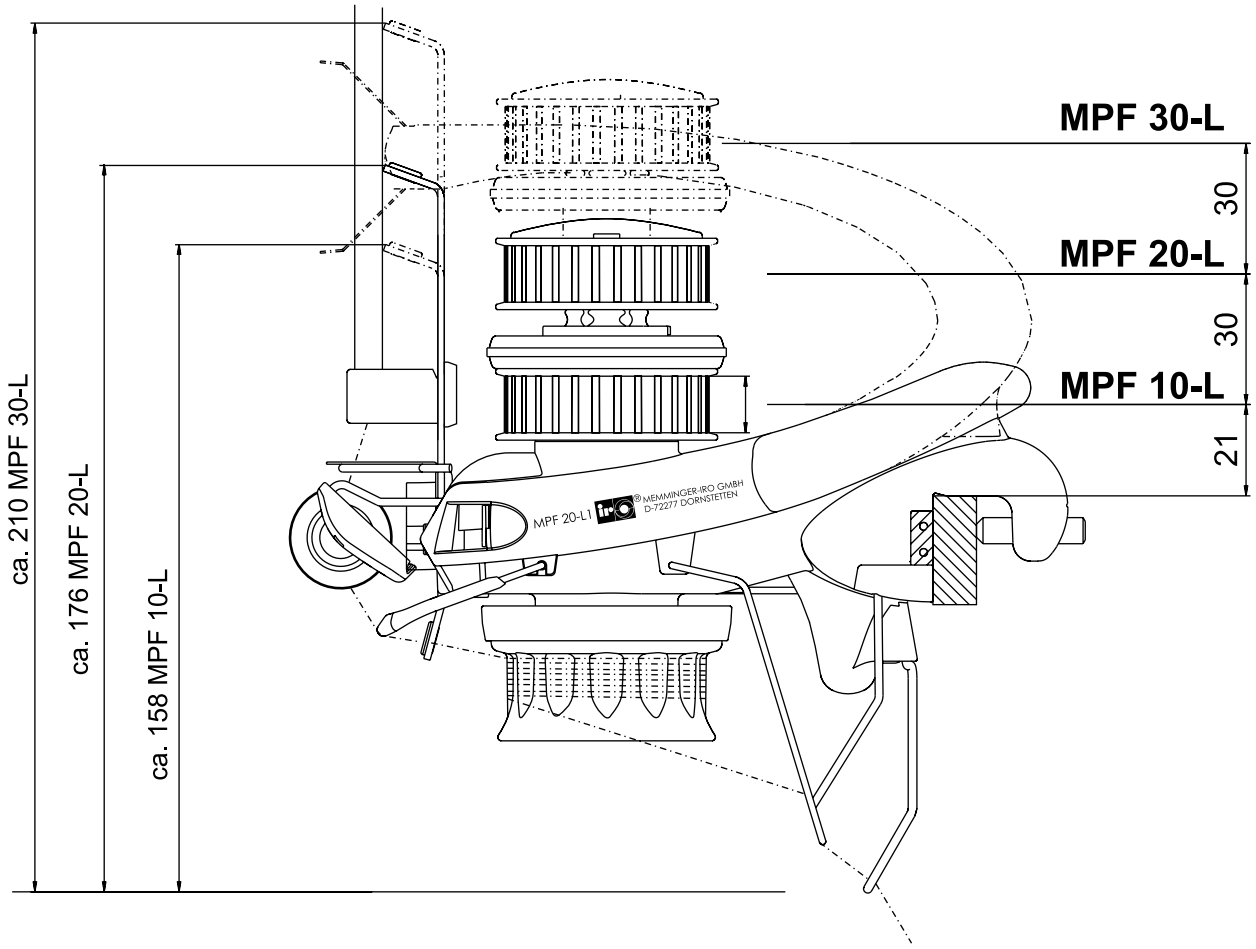
Removing drive pulleys

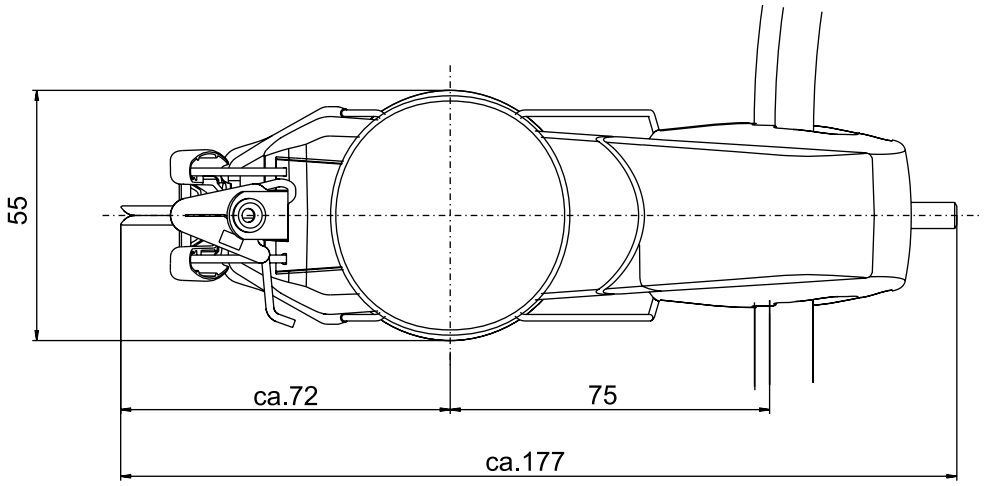
- Take off the feed wheel (**7**).
- Take off the drive pulley/s (**5**).

Fault / message during operation:	Possible reason:	Remedy:
Stop motion does not activate	No connection to earth at the ring	Correct the ring earth connection at the contact to the flat cable
Short-circuit in the stop motion circuit	Faulty connection to the flat cable	Correct the connection to the flat cable
Stop motion arms do not drop, the device does not switch off	Stop motions remain locked out after lockout operation	Deactivate the stop motion lockout
Stop motion activates due to a yarn breake but no lamp is lit.	Defective incandescent lamp	Replace the incandescent lamp
The yarn windings slip off the feed wheel	The reel-off angle of the yarn is too steep	Set to flat reel-
Filament rings collecting on the feed wheel	The reel-off angle of the yarn is too flat	Set to steep reel-off
Overwindings on the feed wheel	The feed wheel is contaminated There are too many windings on the feed wheel	Clean the feed wheel put approx. 20 winding onto the feed wheel
The feed wheel does not rotate	Disengaged clutch	Engage the clutch upwards or downwards

Technical data

Rated voltage:	12 or 24V
Rated current:	60 mA or 50 mA
Min. yarn tension:	1 g
Weight (without packaging):	approx. 430 g to approx. 660 g


MPF 30-L
MPF 20-L
MPF 10-L
30
30
21
ca. 210 MPF 30-L
ca. 176 MPF 20-L
ca. 158 MPF 10-L
MPF 20-L1
MEMMINGER-IRO GMBH
D-72277 DORNSTETTEN


55
ca.72
75
ca.177

deutsch

english

Konformitätserklärung

nach EG-Richtlinie elektromagnetische Verträglichkeit 2004/108/EG (EMV)

Herstellers: Memminger-IRO
Jakob-Mutz-Straße 7
722802 Dornstetten - Germany

Hiermit erklären wir, dass die nachstehend beschriebene Baugruppe

Produktbezeichnung: **MPF L**

den Bestimmungen der oben bezeichneten Richtlinie entspricht.

Die Baugruppe darf höchstens mit einer Schutzkleinspannung gemäß Betriebsanleitung betrieben werden.

Die zur Baugruppe gehörende Betriebsanleitung sowie die technische Dokumentation liegen in der Originalfassung vor.

Die Inbetriebnahme dieser Baugruppe ist so lange untersagt, bis festgestellt wurde, dass die Anlage, in die sie eingebaut werden soll, den Bestimmungen der EG-Richtlinie 2006/42/EG über Maschinen entspricht und die EG-Konformitätserklärung gemäß Anhang II A ausgestellt ist.

HINWEIS!
Im Sinne der EG-Richtlinie 2006/42/EG über Maschinen entspricht die Baugruppe nach Artikel 2 g keiner "unvollständigen Maschine" und benötigt somit keine Einbauerklärung.

Dornstetten, 01.02.2011 M. Kleindorp, Geschäftsführung

Declaration of conformity

In conformity with the EU Electro Magnetic Compatibility (EMC) Directive, 2004/108/EC

The manufacturer: Memminger-IRO
Jakob-Mutz-Straße 7
722802 Dornstetten, Germany

hereby certifies that the following assembly

Product name: **MPF L**

conforms to the requirements of the above named directive.

The assembly may only be operated with a safety extra-low voltage device according to the instruction manual.

The assembly is supplied complete with an original instruction manual and original technical documentation.

The assembly may not be put into service until the machinery into which it is to be incorporated has been declared as being in conformity with the provisions of the EU Machinery Directive 2006/42/EC, Annex II A.

NOTE!
According to Article 2 g of the EU Machinery Directive 2006/42/EC, the assembly is not defined as a subassembly and does not therefore require a Declaration of Incorporation.

Dornstetten, 01.02.2011 M. Kleindorp, Company Management

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